

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/086262 A1

(51) International Patent Classification⁷: **H01M 8/00**

(21) International Application Number:
PCT/US2005/006982

(22) International Filing Date: 2 March 2005 (02.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/549,845 2 March 2004 (02.03.2004) US

(71) Applicant (for all designated States except US): **BELLE WATKINS MINES, INC.** [US/US]; 1118 Maple Street, Golden, CO 80401 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KRUESI, Paul, R.** [US/US]; 1118 Maple Street, Golden, CO 80401 (US).

(74) Agents: **TRAYER, Robert. D.** et al.; Sheridan Ross P.C., 1560 Broadway Suite 1200, Denver, CO 80202-5141 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CARBON-FUELED FUEL CELL

(57) Abstract: A fuel cell in which carbon and water react to form hydrogen or water. The cells utilize electrolyte materials that hold or coordinate water to allow the useful reaction of carbon and water at moderate temperatures without the use of expensive pressure reactors. Activated carbon or carbon recovered from organic waste is used to fuel these cells to produce hydrogen gas or carbon dioxide and power at moderate temperatures and at very low cost.



WO 2005/086262 A1